#### **CLAIMS**

What is claimed is:

- A method of generating code to be deployed in an application server, 1 1. comprising the steps of: 2 3 receiving an archive file to be deployed; introspecting an input class included in the archive file to generate 4 information relating to the input class; 5 generating a markup language description of the input class based on the 6 generated information relating to the input class; 7 creating an event handler for method nodes found in the markup language 8 9 description; registering the event handler; 10 parsing the markup language description and invoking the registered 11 12 event handler; and 13 generating output code using the invoked event handler.
- 1 2. The method of claim 1, wherein the class file is an Enterprise Java Bean 2 class file.

- 1 3. The method of claim 2, wherein the step of introspecting an input class
- 2 included in the archive file comprises the steps of:
- 3 extracting information identifying methods included in the input class;
- 4 and

i i e

- for each method, extracting information relating to parameters of the
- 6 method.
- 1 4. The method of claim 3, wherein the step of generating a markup language
- 2 description of the input class comprises the step of:
- 3 generating an Extensible Markup Language description of the input class
- 4 based on the generated information relating to the input class.
- 1 5. The method of claim 4, wherein the step of creating an event handler
- 2 comprises the step of:
- 3 creating a Simple Application Programming Interface for Extensible
- 4 Markup Language event handler for a method node found in the markup
- 5 language description

- 1 6. The method of claim 5, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:
- 3 parsing the markup language description using a Simple Application
- 4 Programming Interface for Extensible Markup Language parser and invoking the
- 5 registered Simple Application Programming Interface for Extensible Markup
- 6 Language event handler.

1 4+

- 1 7. The method of claim 1, wherein the step of creating an event handler
- 2 comprises the step of:
- 3 creating a plurality of event handlers for a method node found in the
- 4 markup language description.
- 1 8. The method of claim 7, wherein the step of registering the event handler
- 2 comprises the step of:
- 3 registering each of the plurality of event handlers.
- 1 9. The method of claim 8, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:

- 3 parsing the markup language description and invoking each of the
- 4 plurality of registered event handlers.
- 1 10. The method of claim 9, wherein the step of generating output code
- 2 comprises the step of:

q t t

- 3 generating output code using each of the plurality of invoked event
- 4 handler in parallel.
- 1 11. The method of claim 10, wherein the archive file is an Enterprise Java
- 2 Bean archive file.
- 1 12. The method of claim 11, wherein the step of introspecting an input class
- 2 included in the archive file comprises the steps of:
- 3 extracting information identifying methods included in the input class;
- 4 and
- for each method, extracting information relating to parameters of the
- 6 method.

- 1 13. The method of claim 12, wherein the step of generating a markup
- 2 language description of the input class comprises the step of:
- 3 generating an Extensible Markup Language description of the input class
- 4 based on the generated information relating to the input class.
- 1 14. The method of claim 13, wherein the step of creating a plurality of event
- 2 handlers comprises the step of:
- 3 creating a plurality of Simple Application Programming Interface for
- 4 Extensible Markup Language event handlers for a method node found in the
- 5 markup language description
- 1 15. The method of claim 14, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:
- 3 parsing the markup language description using a Simple Application
- 4 Programming Interface for Extensible Markup Language parser and invoking the
- 5 plurality of registered Simple Application Programming Interface for Extensible
- 6 Markup Language event handlers.

1	16. A system for generating code to be deployed in an application server
2	comprising:
3	a processor operable to execute computer program instructions;
4	a memory operable to store computer program instructions executable
5	by the processor; and
6	computer program instructions stored in the memory and executable to
7	perform the steps of:
8	receiving an archive file to be deployed;
9	introspecting an input class included in the archive file to generate
10	information relating to the input class;
11	generating a markup language description of the input class based on the
12	generated information relating to the input class;
13	creating an event handler for a method node found in the markup
14	language description;
15	registering the event handler;
16	parsing the markup language description and invoking the registered
17	event handler; and

18

generating output code using the invoked event handler.

- 1 17. The system of claim 16, wherein the archive file is an Enterprise Java
- 2 Bean archive file.

41 4 9 4

- 1 18. The system of claim 17, wherein the step of introspecting an input class
- 2 included in the archive file comprises the steps of:
- 3 extracting information identifying systems included in the input class; and
- 4 for each system, extracting information relating to parameters of the
- 5 system.
- 1 19. The system of claim 18, wherein the step of generating a markup language
- 2 description of the input class comprises the step of:
- 3 generating an Extensible Markup Language description of the input class
- 4 based on the generated information relating to the input class.
- 1 20. The system of claim 19, wherein the step of creating an event handler
- 2 comprises the step of:
- 3 creating a Simple Application Programming Interface for Extensible
- 4 Markup Language event handler for a system node found in the markup language
- 5 description

- 1 21. The system of claim 20, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:
- 3 parsing the markup language description using a Simple Application
- 4 Programming Interface for Extensible Markup Language parser and invoking the
- 5 registered Simple Application Programming Interface for Extensible Markup
- 6 Language event handler.

t t b •

- 1 22. The system of claim 21, wherein the step of creating an event handler
- 2 comprises the step of:
- 3 creating a plurality of event handlers for a system node found in the
- 4 markup language description.
- 1 23. The system of claim 22, wherein the step of registering the event handler
- 2 comprises the step of:
- 3 registering each of the plurality of event handlers.
- 1 24. The system of claim 23, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:

- 3 parsing the markup language description and invoking each of the
- 4 plurality of registered event handlers.
- 1 25. The system of claim 24, wherein the step of generating output code
- 2 comprises the step of:

e recent

- 3 generating output code using each of the plurality of invoked event
- 4 handler in parallel.
- 1 26. The system of claim 25, wherein the archive file is an Enterprise Java
- 2 Bean archive file.
- 1 27. The system of claim 26, wherein the step of introspecting an input class
- 2 included in the archive file comprises the steps of:
- 3 extracting information identifying systems included in the input class; and
- 4 for each system, extracting information relating to parameters of the
- 5 system.
- 1 28. The system of claim 27, wherein the step of generating a markup language
- 2 description of the input class comprises the step of:

- 3 generating an Extensible Markup Language description of the input class
- 4 based on the generated information relating to the input class.
- 1 29. The system of claim 28, wherein the step of creating a plurality of event
- 2 handlers comprises the step of:

. 1 3 1

- 3 creating a plurality of Simple Application Programming Interface for
- 4 Extensible Markup Language event handlers for a system node found in the
- 5 markup language description
- 1 30. The system of claim 29, wherein the step of parsing the markup language
- 2 description and invoking the registered event handler comprises the step of:
- 3 parsing the markup language description using a Simple Application
- 4 Programming Interface for Extensible Markup Language parser and invoking the
- 5 plurality of registered Simple Application Programming Interface for Extensible
- 6 Markup Language event handlers.
- 1 31. A computer program product for generating code to be deployed in an
- 2 application server comprising:
- a computer readable medium;

- 4 computer program instructions, recorded on the computer readable
- 5 medium, executable by a processor, for performing the steps of
- 6 receiving an archive file to be deployed;
- 7 introspecting an input class included in the archive file to generate
- 8 information relating to the input class;
- 9 generating a markup language description of the input class based on the
- 10 generated information relating to the input class;
- 11 creating an event handler for a method node found in the markup
- 12 language description;

. . . . .

- registering the event handler;
- parsing the markup language description and invoking the registered
- 15 event handler; and
- generating output code using the invoked event handler.
- 1 32. The computer program product of claim 31, wherein the archive file is an
- 2 Enterprise Java Bean archive file.
- 1 33. The computer program product of claim 32, wherein the step of
- 2 introspecting an input class included in the archive file comprises the steps of:

- 3 extracting information identifying computer program products included in
- 4 the input class; and
- for each computer program product, extracting information relating to
- 6 parameters of the computer program product.
- 1 34. The computer program product of claim 33, wherein the step of
- 2 generating a markup language description of the input class comprises the step
- 3 of:

6 13 1

- 4 generating an Extensible Markup Language description of the input class
- 5 based on the generated information relating to the input class.
- 1 35. The computer program product of claim 34, wherein the step of creating
- 2 an event handler comprises the step of:
- 3 creating a Simple Application Programming Interface for Extensible
- 4 Markup Language event handler for a computer program product node found in
- 5 the markup language description

- 1 36. The computer program product of claim 35, wherein the step of parsing
- 2 the markup language description and invoking the registered event handler
- 3 comprises the step of:

g ( ) (

- 4 parsing the markup language description using a Simple Application
- 5 Programming Interface for Extensible Markup Language parser and invoking the
- 6 registered Simple Application Programming Interface for Extensible Markup
- 7 Language event handler.
- 1 37. The computer program product of claim 31, wherein the step of creating
- 2 an event handler comprises the step of:
- 3 creating a plurality of event handlers for a computer program product
- 4 node found in the markup language description.
- 1 38. The computer program product of claim 37, wherein the step of
- 2 registering the event handler comprises the step of:
- 3 registering each of the plurality of event handlers.

- 1 39. The computer program product of claim 38, wherein the step of parsing
- 2 the markup language description and invoking the registered event handler
- 3 comprises the step of:

a 4.5 t

- 4 parsing the markup language description and invoking each of the
- 5 plurality of registered event handlers.
- 1 40. The computer program product of claim 39, wherein the step of
- 2 generating output code comprises the step of:
- 3 generating output code using each of the plurality of invoked event
- 4 handler in parallel.
- 1 41. The computer program product of claim 40, wherein the archive file is an
- 2 Enterprise Java Bean archive file.
- 1 42. The computer program product of claim 41, wherein the step of
- 2 introspecting an input class included in the archive file comprises the steps of:
- 3 extracting information identifying computer program products included in
- 4 the input class; and

- 5 for each computer program product, extracting information relating to
- 6 parameters of the computer program product.
- 1 43. The computer program product of claim 42, wherein the step of
- 2 generating a markup language description of the input class comprises the step
- 3 of:

ar 14 A 15 a

- 4 generating an Extensible Markup Language description of the input class
- 5 based on the generated information relating to the input class.
- 1 44. The computer program product of claim 43, wherein the step of creating a
- 2 plurality of event handlers comprises the step of:
- 3 creating a plurality of Simple Application Programming Interface for
- 4 Extensible Markup Language event handlers for a computer program product
- 5 node found in the markup language description
- 1 45. The computer program product of claim 44, wherein the step of parsing
- 2 the markup language description and invoking the registered event handler
- 3 comprises the step of:

- 4 parsing the markup language description using a Simple Application
- 5 Programming Interface for Extensible Markup Language parser and invoking the
- 6 plurality of registered Simple Application Programming Interface for Extensible
- 7 Markup Language event handlers.